14,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

C 5

34. (Amended) The composition according to Claim 18, wherein said at least one copolyester oligomer has a weight-average molecular mass ranging from 8000 to 10,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

REMARKS

I. Status of the claims

Claims 18-21 and 24-53 are pending and stand newly rejected. Applicant acknowledges and appreciates that all previous grounds of rejection were withdrawn.

Without prejudice or disclaimer, claims 22 and 23 have been canceled, and claims 18, 24, 26, 28, and 30-34 have been amended to more particularly point out and distinctly define the claimed invention. Specifically, claim 18 has been amended to include the subject matter of claims 22 and 23, while claims 24, 26, 28, and 30-34 have been amended to correct the dependencies in view of the cancellation of claim 23. Accordingly, support for these amendments can be found throughout the claims and specification as originally filed. Thus, no new matter has been added.

As required by 37 C.F.R. § 1.121 (c)(1)(ii), Applicant has provided a marked-up version of the amended claims in the attached Appendix.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

II. Obviousness-typ Double Patenting Rejection

The Office has provisionally rejected claims 18-39 under the judicially created doctrine of obviousness-type double patenting over the claims 1-18 of U.S. Patent No. 6,031,043.

To obviate this rejection, Applicant has filed herewith a Terminal Disclaimer in accordance with M.P.E.P. § 804.02. Thus, Applicant requests that the rejection be withdrawn.

III. Rejection under 35 U.S.C. § 112, second paragraph

The Office has rejected claims 18-22 and 40-53 under 35 U.S.C. § 112, second paragraph, because "the compound in these claims is not defined with any chemical or physical characteristic, but only by functional properties. A claim to a material defined solely in terms of what it can do, or a property thereof, does not particularly point out the claimed invention." Present Office Action at page 2.

Applicant respectfully disagrees. Defining an invention in functional terms is acceptable and deemed proper under the standards of U.S. patent practice. In fact, M.P.E.P. § 2173.05(g) advocates the use of such language by stating that

> [a] functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms.

Emphasis added.

Nevertheless, claim 18 has been amended to recite the hydrophilic gelling polymer contained in non-rejected claim 23, now canceled. Applicant therefore requests withdrawal of the rejection.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

IV. Rejection under 35 U.S.C. § 103(a)

The Office has rejected under § 103(a) claims 18-36, 39, and 51-53[1] over U.S. Patent No. 4,300,580 to O'Neill et al. ("O'Neill) and claims 18, 37, 38, and 40-50 over O'Neill in view of EP 055178 to Lee et al. ("Lee"). *See* Present Office Action at pages 4-5. Applicant traverses these rejections for the reasons set forth below.

A. O'Neill

The Office admits that "[O'Neill] lacks preferred percent weights of the monomer units." *See* present Office Action at page 4. The Office, however, makes the general conclusion that "[i]t would have been obvious . . .to teach the mole percents of the monomers of [O'Neill] as those of the instant invention, since a) [O'Neill] generally teaches the mole percents of the monomers, and b) it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art." *Id.* Applicant respectfully disagrees with the Office's reasoning.

In particular, O'Neill does not teach, and neither does the Office address, the viscosity limitations of the aqueous gel of the claimed invention. *See* M.P.E.P. § 2143 ("A prior art reference must teach or suggest all claim limitations.") At best, O'Neill discloses that the composition will have an inherent viscosity (I.V.) of at least 0.15. *See, e.g.,* col. 4, lines 19-20. O'Neill, however, does not specify any ranges, shear strains, ratios, or any of the required parameters of the viscosity of the aqueous gel of the

[1] Applicant notes that the rejected claims indicated in the Office Action are incorrect. As set forth in the Interview Summary dated October 15, 2002, the Examiner indicated that claims "18-36" should have been listed in the rejection.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

claimed invention. *See* M.P.E.P. § 2141.02, *citing W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983) ("A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention."). Moreover, the Office has not presented any evidence showing that these parameters would be inherent in O'Neill. Accordingly, for at least these reasons, the rejection is improper and should be withdrawn.

Furthermore, the Office's conclusion that O'Neill "generally" teaches mole percents directly contravenes other basic requirements of obviousness, i.e., there must be some suggestion or motivation to modify the reference's teachings. *See* M.P.E.P. § 2143. Specifically, the Office never addresses how or why there would be a suggestion or motivation to quantitatively modify the mole percents of monomers taught in O'Neill to achieve the claimed invention. Rather, the Office improperly assumes that the general conditions of the claims are disclosed in O'Neill, such that the ranges in the claimed invention are merely optimum or workable. As discussed above, however, with regard to the required viscosity parameters, the "general conditions" of the claimed invention are clearly not met by O'Neill. Accordingly, the rejection should be withdrawn for this reason as well.

Lastly, Applicant respectfully points out that the Federal Circuit has recently required that the record contain "substantial evidence" to support the Office's determinations of prima facie obviousness. *See In re Zurko*, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001). Specifically, unless "substantial evidence" found in the record supports the factual determinations central to the issue of patentability, the rejection is improper and should be withdrawn. *See Zurko*, 258 F.3d at

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

1386. Indeed, in view of this precedent established by the Federal Circuit and the above stated reasons, substantial evidence is lacking by the Office's rejection. Accordingly, Applicant requests withdrawal of the rejection.

B. O'Neill in view of Lee

As admitted by the Office, O'Neill "lacks a fatty phase and a device." Present Office Action at page 5. Nonetheless, the Office applies Lee to cure these deficiencies. See *id.* Applicant respectfully disagrees for at least the following reasons.

Initially, Applicant submits that claim 18 has been amended to include the language of claims 22 and 23, which were not rejected in this rejection. Accordingly, the rejection over claims 18 and 37-38 should be withdrawn.

Regarding claims 40-50, as discussed above, O'Neill fails as a primary reference, since it does not teach or suggest all of the limitations of the claimed invention, e.g., the viscosity parameters. Moreover, Lee does not cure these deficiencies, since it also does not teach, *inter alia*, the recited viscosity parameters.

Furthermore, Applicant respectfully points out that the Federal Circuit has made it clear that a rejection under section 103 cannot rely on an argument that "presents, in essence, an 'obvious to experiment' standard for obviousness." *In re Dow Chemical Co. v. American Cyanamid Co.,* 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1988). Rather, such a standard "would not only be contrary to statute but result in a marked deterioration of the entire patent system..." *In re Thomlinson*, 150 U.S.P.Q. 623, 626 (C.C.P.A. 1966).

The Federal Circuit has given some examples of what would constitute an "obvious to experiment" or "obvious to try" modification based on the prior art. See *In re*

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

O'Farrell, 7 U.S.P.Q.2d 673 (Fed. Cir. 1988). "In some cases, what would have been 'obvious to try' would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful. In others, what was 'obvious to try' was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." *Id.* at 903, 7 U.S.P.Q.2d at 1681 (citations omitted) (emphasis added).

In the present case, the general guidance or shared commonality of the references, at best, is that they both disclose "hair care compositions comprising sulfopolyesters in the form of sprays." Present Office Action at page 5. It is also alleged by the Office that "Lee teaches that adding fatty alcohols to compositions comprising sulfopolyesters counteracts the dullness imparted to the hair by the polyesters." *Id.* This shared commonality and/or general guidance, however, provides neither the parameters nor the direction on how to make or develop a device that comprises a container containing the composition of the present invention, i.e., a container containing a hydrophilic gelling material with the rheological properties as presently claimed. Further, the Office does not address how or why there would be a reasonable expectation of success in combining the teachings of both references to even achieve the claimed invention. *See* M.P.E.P. § 2143. Thus, the rejection is improper and should be withdrawn for all of these stated reasons.

C. Unexpected Results

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

Applicant notes that the Office asserts that it is "[A]pplicant's burden to demonstrate unexpected results over the closest prior art." Present Office Action at pages 5-6. In contrast to the Office's assertion, however, it is the Office who bears the initial burden of establishing a prima facie case of obviousness. *See In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Rather, only if the Office demonstrates a prima facie case of obviousness does the burden shift to the applicant to come forward with evidence persuasive of the invention's nonobviousness. *See In re Piasecki*, 745 F.2d at 1472, 223 U.S.P.Q. at 788. In the present case, as discussed above, the Office has failed to demonstrate a prima facie case of obviousness and, therefore, Applicant bears no burden to demonstrate nonobviousness, let alone unexpected results over the closest prior art.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: January 16, 2003

By: Bryant L. Young
Bryant L. Young
Reg. No. 49,073

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

OIPE
JAN 16 2003
JC48
PATENT & TRADEMARK OFFICE

APPENDIX

Version with markings to show changes made, pursuant to 37 C.F.R. § 1.121 (c)(1)(ii)

IN THE CLAIMS:

Claims 18, 24, 26, 28, and 30-34 have been amended as follows:

18. (Amended) A topical composition comprising an aqueous gel which comprises a hydrophilic gelling material, wherein said gel has rheological properties comprising:

- an initial viscosity V_0 ranging from 3000 to 50,000 Pa.s, wherein said initial viscosity V_0 is stable up to a shear strain C_1,
- a Viscosity V_2 after shear at a strain C_2, wherein a ratio of V_0/V_2 is greater than or equal to 1000, and
- a difference of C_2-C_1 is less than or equal to 100 Pa[.];

wherein said hydrophilic gelling material is a hydrophilic gelling polymer chosen from at least one water-soluble and water-dispersible terephthalic copolyester oligomer comprising dicarboxylate repeating units of formula (1):

$$-CO-A-CO-O-(CH_2-CH_2-O)_n- \qquad (I)$$

wherein

- A is chosen from 1,4-phenylene and sulfo-1,3-phenylene groups, and optionally, 1,3-phenylene groups,
- n ranges from 1 to 4,
- at least 35 mol% of said units of formula (1) are units of formula (1) wherein A is a 1,4-phenylene group and n is equal to 1,

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

- at least 7 mol% of said units of formula (1) are units of formula (1) wherein A is a sulfo-1,3-phenylene group, and

- the weight-average molecular mass of said at least one copolyester oligomer is less than 20,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

24. (Amended) The composition according to Claim [23] 18, wherein up to 20% of said units of formula (1) are units of formula (1) wherein A is a 1,3-phenylene group.

26. (Amended) The composition according to Claim [23] 18, wherein at least 40 mol% of said units of formula (1) are units of formula (1) wherein A is a 1,4-phenylene group and n is equal to 1.

28. (Amended) The composition according to Claim [23] 18, wherein at least 10 mol% of said units of formula (1) are units of formula (1) wherein A is a sulfo-1,3-phenylene group.

30. (Amended) The composition according to Claim [23] 18, wherein said at least one copolyester oligomer has end groups independently chosen from groups of formula (I'):

$$-CO-A-CO-O-(CH_2-CH_2-O)_n-OH \qquad (I')$$

wherein

- A and n are defined as in [claim 23] Claim 18.

31. (Amended) The composition according to Claim [23] 18, wherein said at least one copolyester oligomer has end groups independently chosen from

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

-A-CO-OH and

-A-CO-OR

wherein A is defined as in [claim 23] Claim 18 and R is a C_1-C_4 alkyl group.

32. (Amended) The composition according to [claim 23] Claim 18, wherein said at least one copolyester oligomer has a weight-average molecular mass of less than 15,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

33. (Amended) The composition according to Claim [23] 18, wherein said at least one copolyester oligomer has a weight-average molecular mass ranging from 5000 and 14,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

34. (Amended) The composition according to Claim [23] 18, wherein said at least one copolyester oligomer has a weight-average molecular mass ranging from 8000 to 10,000 polystyrene equivalents, as measured by gel permeation chromatography in dimethylacetamide containing 10^{-2} N of LiBr, at 100°C.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com